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United States Patent [19]**Momose**[11] **Patent Number:** **5,920,988**[45] **Date of Patent:** **Jul. 13, 1999**[54] **ELECTRIC SHAVER**[75] Inventor: **Kazuhiro Momose**, Nagano, Japan[73] Assignee: **Izumi Products Company**, Nagano, Japan[21] Appl. No.: **09/128,816**[22] Filed: **Aug. 4, 1998**[30] **Foreign Application Priority Data**

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[51] **Int. Cl.⁶** **B26B 19/44**[52] **U.S. Cl.** **30/41; 30/41.7**[58] **Field of Search** 30/41, 41.5, 41.6, 30/41.7[56] **References Cited****U.S. PATENT DOCUMENTS**

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An electric shaver including a display that indicates when it is time to clean the shaving debris accumulated on a shaving debris receiving part that is covered by an outer cutter frame of the shaver. A counting device of the shaver counts the use time (or the load current) of the motor that drives the inner cutter so that a control device compares the counted use time with a preset reference value; and when the counted use time reaches the preset reference value, the control device judges that the time for cleaning has arrived and actuates the display so that the display shows that it is time for cleaning. Thus, the user detaches the outer cutter frame and removes the shaving debris from the shaving debris receiving part in which a light-receiving devices is embedded. When the shaving debris is removed and the light exceeding a preset light quantity impinges on the shaving debris receiving part, the control device detects via the light-receiving device that light exceeding the reference quantity of light has impinged on the shaving debris receiving because of the removal of the shaving debris; as a result, the control device resets the counting device so that the counting device re-starts the count of the use time.

10 Claims, 6 Drawing Sheets